AMENDMENT

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Previously presented) A method for enhancing *in vitro* synthesis of proteins and fragments thereof in a cell-free system comprising endogenous adenosine 5' phosphosulfate where ATP is required as a primary energy source, comprising enriching said cell-free system ~~is~~ with ATP-sulfurylase.

2. (Previously presented) A method according to claim 1, wherein the cell free system further comprises exogenous adenosine 5' phosphosulfate.

3. (Previously presented) The method according to claim 1, wherein said *in vitro* synthesis also comprises transcription of mRNA from a DNA template.

4. (Previously presented) A method according to claim 1, comprising carrying out said *in vitro* synthesis in a reaction vessel as a batch reaction, semi continuously or continuously.

5. (Previously presented) A method according to claim 1, comprising adding ATP-sulfurylase to the cell-free system at the beginning and/or during the *in vitro* synthesis or at intervals during the *in vitro* synthesis.

6. (Previously presented) A method according to claim 1, wherein the cell-free system comprises a cell-free extract prepared from cells transformed with a vector over-expressing ATP-sulfurylase.

7. (Currently amended) A method according to claim 1, comprising ~~adapting~~ an ATP-sulfurylase concentration in a cell-free-system in a range from 0.1 to 10 U/ml with or without adenosine 5'-phosphosulfate ~~according to the experimental conditions and the biological macromolecules to be synthesized~~.

8. (Previously presented) A method according to claim 1, wherein ATP-sulfurylase

is present in the cell-free system at an initial concentration of at least about 0.1 U/ml.

9-14. (Canceled)

15. (Previously presented) A cell-free extract comprising components that are capable of translating messenger ribonucleic acid encoding a desired protein enriched with ATP-sulfurylase.

16. (Previously presented) A cell-free extract according to claim 15 comprising exogenous adenosine 5' phosphosulfate.

17. (Previously presented) A cell-free extract according to claim 15 comprising all substances necessary for the translation of mRNA and transcription of mRNA from a DNA template.

18. (Currently amended) A cell-free extract according to claim 15, wherein extra ATP-sulfurylase is ~~derived from~~ expressed by a prokaryotic organism, a eukaryotic organism, a transgenic vector, a bacterial cell that has been genetically modified, an *E. coli* extract, or is purified.

19. (Previously presented) A cell-free extract according to claim 15 prepared from cells transformed with a vector over-expressing ATP-sulfurylase.

20. (Previously presented) A cell-free extract according to claim 15, wherein ATP-sulfurylase is present in a concentration of at least about 0.1 U/ml.

21. (Previously presented) A method for enhancing *in vitro* synthesis of polypeptides, comprising:

(a) providing a cell-free system comprising mRNA and adenosine 5' phosphosulfate and enriched with ATP-sulfurylase; and

(b) translating said mRNA.

22. (Previously presented) A cell-free system for mRNA translation comprising components for cell-free mRNA translation, wherein said system is enriched with ATP-

sulfurylase.

23. (New) A cell-free system comprising a cell-free extract according to any one of claims 15-20 or 22.

24. (New) A method for enhancing in vitro synthesis of proteins and fragments thereof in a cell-free system comprising endogenous adenosine 5' phosphosulfate where ATP is required as a primary energy source, comprising enriching the cell-free extract of said cell-free system with ATP-sulfurylase.